

**A NEW SPECIES OF *ENCARSIA*
(HYMENOPTERA: APHELINIDAE), A PARASITOID OF
WHITEFLY *ALEURODICUS* SP.
(HOMOPTERA: ALEYRODIDAE) IN MEXICO**

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Abstract.—*Encarsia narroi*, NEW SPECIES, is described from Mexico. Females of this species were collected from fourth instar nymphs of an *Aleurodicus* sp. on the host plants *Bauhinia variegata* and *Hibiscus* sp. at Parras, Coahuila State, México. The new species is similar to *Encarsia coquillettii*.

Key Words.—Insecta, Hymenoptera, Aphelinidae, *Encarsia*, Mexico.

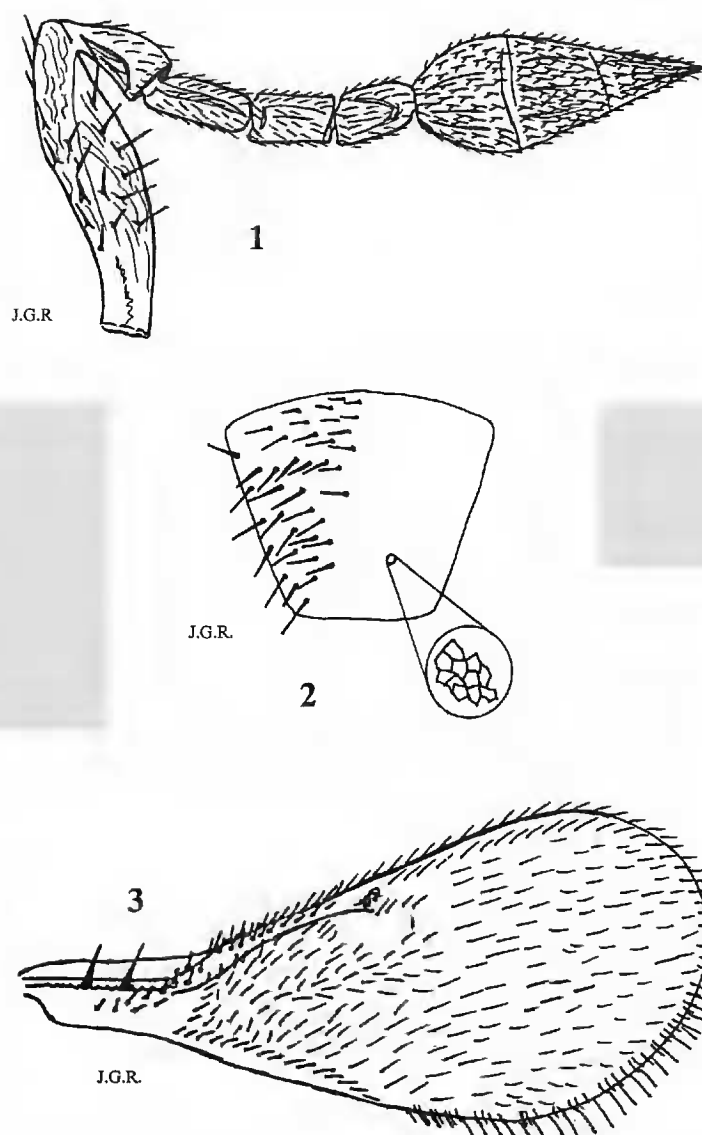
About 100 species of parasitoids have been identified among the natural enemies of whiteflies (van Lenteren et al. 1996). Most of these parasitoids belong to the family Aphelinidae (Hymenoptera: Chalcidoidea), although Scelionidae, Ceraphronidae, Encyrtidae, Eulophidae and Platygasteridae species have also been reported (Gerling 1990, Myartseva & Yasnosh 1994, Polaszek et al. 1992). The most important whitefly parasitoids belong to the genera *Encarsia* and *Eretmocerus* (Hennessey et al. 1995, Polaszek et al. 1992, Schauff et al. 1996). In the present paper we report and describe an *Encarsia* species from Mexico, it was identify as undescribed species by R. C. Williams, Agricultural Research Service Laboratory (ARS-USDA), which is described here as *Encarsia narroi* Gómez & García species nova, named in honor of Antonio Narro founder of the Agricultural University “Antonio Narro” Saltillo, Coahuila, Mexico.

ENCARSIA NARROI Gómez & García, NEW SPECIES
(Figs. 1–3)

Diagnosis.—Female, brown coloured; antennal club quite wide (0.06 mm) and spindle shaped, with the terminal of the 3rd segment more clearly apically pointed than the base of the 1st segment (Fig. 1); mesoscutum with 42 pairs of long setae (Fig. 2); forewing uniformly setose, except below the submarginal vein which bears 10 setae and one small clear area below the stigmal vein (Fig. 3).

Description.—Female. Body length 1.37–1.4 mm. Brown coloured, except scutellum which is pale yellow. Funicular segments, front legs, middle legs, and tibiae, tarsus hind legs also pale yellow coloured. Vertex and part of face striated, with short stout setae; setae surrounding the eyes softer and shorter than those on the vertex. Eye colour orange. Antenna densely pilose, with 3 funicle and 3 club segments, is about 0.48–0.52 mm long; antennal scape slender; pedicel conical subequal in length to funicular segments; funicular segments of equal size, 0.066–0.073 mm long and about 1.6 times longer than wide; antennal club wide and spindle shaped, with 3rd club segment more apically pointed than the 1st segment (Fig. 1), measures 0.16–0.17 mm long and about 2.8 times longer than its widest point.

Mesoscutum, scutellum and axillae strongly reticulated, with pentagonal and hexagonal cells with a few distinct ridges; mesoscutum shows 42 pairs of long setae (Fig. 2); scutellum with 4 long setae,



Figures 1–3. *Encarsia narroi*. Figure 1. Antenna. Figure 2. Mesoscutum in dorsal view, setae and cells. Figure 3. Forewing.

longer than mesoscutum setae; axillae with 1 short seta on each one; scutellar sensilla widely separated, more than twice their diameter. Abdominal tergites smooth at the center and finely reticulated laterally, with 4–5 setae on each side starting from 4th tergites. Ovipositor shorter than metasoma, originating between 2nd and 3rd tergite.

All tarsi 5-segmented, tibial spur is about 0.066–0.073 mm long and middle basitarsus is 1.4 times more long than tibial spur. Forewing hyaline, varies between 0.80–0.89 mm long and about 2.3 times longer than its widest point; disk area uniformly setose except for the area below the submarginal vein which bears 10 setae (Fig. 3), and with a small asetose area below the stigmal vein.

Male.—Unknown.

Biology.—This species is a parasitoid of the pupa of an *Aleurodicus* sp. (Homoptera: Aleyrodidae) collected on *Bauhinia variegata* and *Hibiscus* sp., A maximum of 64% parasitism was observed in one sample. A *Signiphora* sp., is also associated with this species, which is probably a hyperparasitoid of whitefly (Polaszek 1992).

Distribution.—Mexico, Coahuila State.

Material examined.—Holotype ♀ MEXICO, Parras, Coahuila, 1500 m a.s.l., 11 Feb 1995 and 2 paratypes are deposited in the entomological collection of the National Reference Centre for Biological Control in Colima, Mexico.

DISCUSSION

Encarsia narroi is most similar to *Encarsia coquillettii* (Schauff et al. 1996), but can be differentiated from *E. coquillettii* by the following characteristics: me-

soscutum with 5 pairs of setae in *E. coquilletti*, whereas *E. narroi* have 42 pairs of setae; both species with body color brown, but scutellum in *E. narroi* is pale yellow.

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